

N^o 4376



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COMPLETE SPECIFICATION.

Improvements in Portable Armour Shields.

I, MICHEL PETRUS JOSEPHUS EGIDIUS LA FONTJN, of Oude Scheveningsche weg 124, Scheveningen, Holland, of no occupation, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

- 5 This invention relates to armour shields for military purposes.
- The invention has for its main object to provide an improved portable armour shield which enables a soldier to approach and attack enemy trenches, barricades and the like, to destroy or to make wire entanglements, etc. with practically full protection against rifle and machine-gun fire, shrapnel-bullets
- 10 and the like, and which can also be employed as a protection during retreat, without in any way encumbering the movements of the man, whose body is protected by the shield. Furthermore the shield according to this invention can be set up by itself as a bullet-proof screen, and can be used as a hand litter.

- 15 Armour shields are known which consist of a flat metal plate pierced with sight apertures and loop holes, and mounted on wheels and having stays or struts by which they may be supported in position, these also serving for handles when they are used as a stretcher.

- Armour shields are also known which only cover the breast, the head being
- 20 covered by a supplementary, separate shield. Armour shields of this kind however are very unpractical owing to the fact that the breast and head shields are not rigidly connected, so that blows against the head shield cause hurt or injury to the face. Furthermore these shields fit closely to the body, so that bullets, piercing the armour, cause very complicated wounds, on account of
- 25 the inwardly driven metal parts of the shield penetrating into the body.

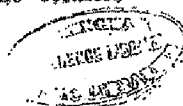
According to this invention the shield consists of a curved plate of approximately four feet height, preferably made of $\frac{1}{4}$ inch diamond-steel.

- The sight apertures or loop holes in the screen can be closed by means of flaps, slides or the like and which serve for observation, as rifle apertures,
- 30 and as passages for the hands and fore arms during the operation of making or clipping wire entanglements.

- Means are provided for carrying the shield on the shoulders and keeping it at the required distance from the body and knees, in order that the man who carries it is not in any way encumbered in his movements. Means are
- 35 also provided for supporting the shield freely at approximately the normal height of a man, so that it can serve as a kind of free screen or guard for exposed sentries and the like.

- In cases of retreat, the armour can easily be carried on the back, so that the same protection against rifle bullets, machine-gun fire and shrapnel is
- 40 obtained as during attack. In order to complete the armour, the soldiers

[Price 6d.]



Improvements in Portable Armour Shields.

can be provided with $\frac{1}{8}$ inch leg guards, preferably made of diamond-steel, which can be easily turned from the front to the back of the legs in case of retreat.

The invention is illustrated in the accompanying drawings, in which:

Figure 1 is a vertical longitudinal section of the shield carried by a soldier 5 on his shoulders.

Figure 2 is a plan view thereof.

Figure 3 is a slightly reduced perspective view, showing the shield set up as a stationary screen.

Figure 4 is a front elevation showing the shield set up on one of its longer 10 edges, various parts being omitted in this view for the sake of clearness.

Figures 5 and 6 are enlarged views of details.

In the drawings, 1 designates the body portion of the shield, consisting of a curved plate, preferably made of diamond-steel, and of approximately four 15 feet height and a maximum width of two feet. If desired the plate may be made of tungsten-nickel steel or the like, but must then be somewhat thicker in order to give as good protection as diamond-steel plate.

2 is a slot or peep-hole partly covered at the outside of the shield by a downwardly inclined metal strip 3, rivetted or otherwise connected to the plate in such a manner that bullets are prevented from passing through said slot. 20 In order to prevent upwardly directed bullets or shell splinters from entering the slot 2 an upwardly-inclined metal strip 4 is attached to the plate 1, some distance below the hole 2.

5, 5 and 6 (Figures 1, 3 and 4) are rifle apertures, and 7, 7 are holes for passing through the hand and fore arms in clipping wire-entanglements. It 25 will be seen that the holes 7 can also be used as rifle apertures.

The holes 5, 6 and 7 can be opened and closed by means of flaps, shutters, or slides 8, which can be fixed by means of wing-nuts 9 or the like (Figure 6). It will be seen that in using the shield it is possible to fire safely in an upright, 30 kneeling or recumbent position.

10, 10 are shoulder-pieces which fit upon the man's shoulder and by means of which the shield is easily carried. They are removably and adjustably attached to the plate 1 by means of a pin and slot connection, bayonet-joint or the like (Figure 5), so that the shield can be used by men of various heights. 35 11, 11 are distance-pieces adapted to engage the sword-belt and keep the lower part of the shield at the required distance from the body and knees, so that the soldier can easily march while carrying the shield. These distance-pieces are removably and adjustably attached to the plate 1 in a similar way to the shoulder-pieces 10.

Inside the shield vertical rods 12 are provided at both sides and are slidable 40 in tubular guides or the like, so that they can be pushed out as shown in Figure 3 in case it is desired to use the shield as a stationary upright screen (Figure 3).

Supporting rods or struts 13 are provided for the same purpose, and the upper portions are adjustable in slots 14. 45

These rods are made in sections articulated at 15 and 16, so that the rods can be folded against the inside of the shield (Figure 1). By unfolding the supporting rods 13 and hooking them into brackets 17 they can be made to serve, with the rods 12, after removal of the shoulder and distance pieces, as handles in case it is desired to use the shield as a litter. 50

Supporting rods or struts 18 are connected by means of ball-joints to the upper and lower edges of the shield (Figures 1, 2, 3, and 4) and can be placed in position as shown in Figure 4 in case it is desired to use the shield as a screen for two or three recumbent men.

For transport the shoulder and distance pieces can be removed, so that any 55 number of shields can easily be packed, fitting one against the other.

Improvements in Portable Armour Shields.

If desired handles such as 20 (Figures 1 and 3) may be arranged at the inside or outside of the shield.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that
5 what I claim is:—

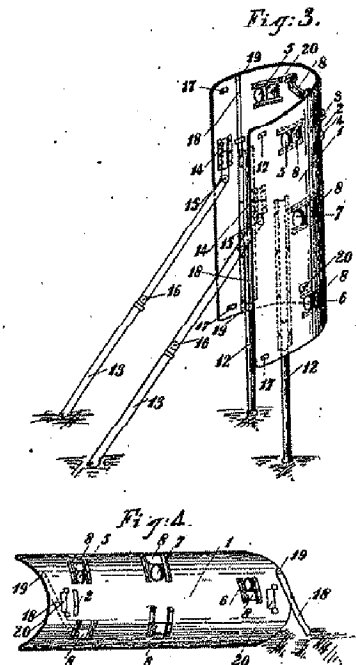
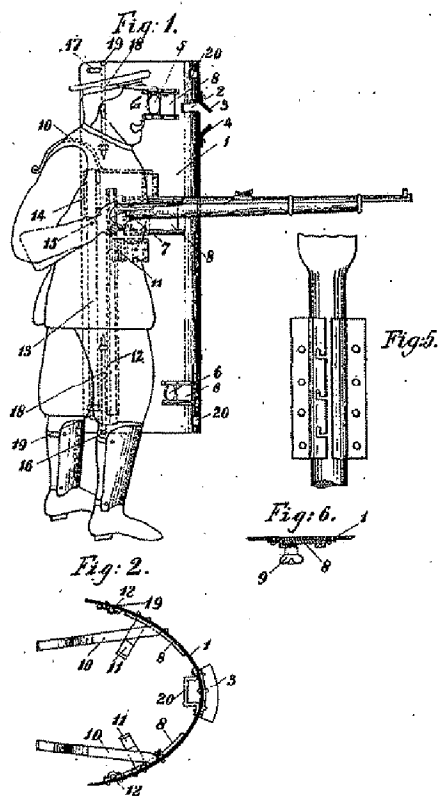
1. An armour shield intended to be carried by and in front of or behind the body, and capable of being placed upright on supports or lying on one of its longer sides, and also adapted for use as a hand litter, said shield consisting of a curved plate provided with peep-holes (2) suitably protected by metal
10 strips (3 and 4) and with rifle apertures and arm holes (5, 6, 7,) adapted to be closed by slides (8) or the like, the shield being also provided with removable and adjustable shoulder-pieces (10) and distance pieces (11), substantially as and for the purpose described.
2. An armour shield according to Claim 1, comprising vertical supporting
15 rods (12) which are slidable in tubular guides or the like, and struts (13) partially slidable in vertical direction and foldable against the inside of the shield, so that the shield can be employed as a stationary screen, substantially as described and illustrated in the accompanying drawings.
3. An armour shield according to Claim 1, comprising supporting rods (18)
20 connected by means of joints to the upper and lower edge of the shield, so as to support the shield lying with one of its longer sides on the ground, substantially as described and illustrated in the accompanying drawings.
4. The combination of parts forming the improved armour shield substantially as described and illustrated in the accompanying drawings.

25 Dated this 10th day of March, 1915.

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[This drawing is a reproduction of the Original on a reduced scale.]



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